

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-27 (Cancelled)

28. (Currently Amended) An apparatus comprising:

a pressure sensor arranged and constructed to detect pressure fluctuations inside an air intake conduit that is in communication with an engine of a vehicle, the pressure sensor generating pressure fluctuation signals,

an amplifier in communication with the pressure sensor and being arranged and constructed to amplify said pressure fluctuation signals, ~~thereby generating~~ generate signals representative of the sound of said vehicle engine sounds based ~~upon said pressure fluctuations detected by the pressure sensor,~~ and

at least one speaker coupled to the output of said amplifier disposed so as to make said ~~engine sounds~~ amplified pressure fluctuation signals audible inside a cabin of the vehicle, ~~said at least one speaker being arranged and constructed to receive said signals generated by the amplifier.~~

29. (Previously Presented) An apparatus as in claim 28, wherein the pressure sensor comprises a piezoelectric element.

30. (Currently Amended) An apparatus as in claim 29, wherein the pressure sensor has a frequency range of about ~~1-10 Hz~~ 1 Hz to 10 kHz.

31. (Previously Presented) An apparatus as in claim 30, further comprising:

a filter disposed between the pressure sensor and the amplifier, and

a modulator arranged and constructed to adjust the frequency range of the filter.

32. (Previously Presented) An apparatus as in claim 31, wherein the modulator is also arranged and constructed to adjust the amplification factor of the amplifier.

33. (Previously Presented) An apparatus as in claim 28, wherein the pressure sensor is connected to an inner wall of an intake manifold and is disposed upstream of a throttle valve.

34. (Previously Presented) An apparatus as in claim 33, wherein the pressure sensor is a differential pressure sensor and the pressure sensor has an input window that is mounted adjacent to a hole defined in the intake manifold.

35. (Currently Amended) A method comprising:

detecting pressure fluctuations inside an air intake conduit, which is in communication with an engine of a vehicle, using a pressure sensor, wherein the pressure sensor generates pressure fluctuation signals ~~representative of the noise of the engine, and~~

amplifying said pressure fluctuation signals and

supplying the amplified pressure fluctuation signals to at least one speaker disposed inside a cabin of the vehicle, ~~wherein~~ whereby the at least one speaker outputs sounds representative of the ~~engine noise of said vehicle engine.~~

36. (Currently Amended) A method as in claim 35, wherein the amplifying step further comprises

frequency-selective filtering said pressure fluctuation signals generated by the pressure sensor, and

modulating said pressure fluctuation signals based upon operational parameters of the vehicle.

37. (Previously Presented) A method as in claim 36, further

comprising attenuating frequencies above 300 Hz.

38. (Previously Presented) A method as in claim 35, wherein the pressure fluctuations are detected by the pressure sensor upstream of a throttle valve.

39. (Previously Presented) A method as in claim 35, wherein the pressure sensor is a differential pressure sensor.

40. (Previously Presented) A method as in claim 39, wherein the differential pressure sensor is a piezoelectric element.

41. (Currently Amended) A method as in claim 40, wherein the piezoelectric element has a frequency range of about ~~1-10 Hz~~ 1 Hz to 10 kHz.

42. (Previously Presented) An apparatus comprising:

a piezoelectric sensor disposed in an intake manifold in communication with a vehicle engine, wherein if the vehicle engine has a throttle valve, the piezoelectric sensor is disposed upstream of the throttle valve, and wherein the piezoelectric sensor is arranged and constructed to generate signals based upon detected pressure fluctuations, which signals emulate the noise of said vehicle engine,

an amplification circuit arranged to amplify said engine noise signals and

at least one speaker arranged and constructed to receive the amplified signals and being disposed so as to make engine sounds audible inside a cabin of the vehicle.

43. (Currently Amended) An apparatus as in claim 42, further comprising:

a filter disposed between the pressure sensor and the amplification circuit, and

a modulator arranged and constructed to adjust the frequency range of the filter and to adjust the amplification gain of the

amplification circuit,

wherein the piezoelectric sensor is a differential sensor having a frequency range of about ~~1-10 Hz~~ 1 Hz to 10 kHz and is connected to an inner wall of the intake manifold.

44. (Currently Amended) An apparatus as in claim 43 ~~42~~, wherein ~~the piezoelectric sensor has an input window that is mounted adjacent to a hole defined in the intake manifold~~ the vehicle engine has the throttle valve, the pressure sensor is arranged and constructed to generate pressure fluctuation signals that are the source of said engine sound to be made audible inside the cabin of the vehicle and said engine sounds are representative of said vehicle engine.

45. (Previously Presented) A method comprising:

detecting pressure fluctuations inside an air intake manifold, which is in communication with an engine of a vehicle, using a piezoelectric sensor, wherein if the vehicle engine has a throttle valve, the piezoelectric sensor is disposed upstream of the throttle valve, and wherein the piezoelectric sensor generates signals that emulate the noise of the vehicle engine, and

amplifying said engine noise signals and

supplying the amplified signals to at least one speaker disposed inside a cabin of the vehicle, wherein the at least one speaker outputs sounds representative of the engine noise.

46. (Previously Presented) A method as in claim 45, wherein the amplifying step further comprises:

frequency-selective filtering said engine noise signals and
modulating said engine noise signals based upon operational parameters of the vehicle.

47. (Currently Amended) A method as in claim 46 ~~45~~, wherein the ~~piezoelectric sensor is a differential pressure sensor having a frequency range of about 1-10 Hz~~ vehicle engine has the throttle

valve, the pressure sensor generates pressure fluctuation signals that are the source of said engine noise that is made audible inside the cabin of the vehicle and said engine noise is representative of said vehicle engine.